

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A fluorine-containing vinyl ether represented by the formula 1,



wherein R represents an organic group comprising at least one fluorine atom and a cyclic structure.

2. (Original) A fluorine-containing vinyl ether according to claim 1, wherein the organic group comprises:

(a) the cyclic structure that is selected from the group consisting of cyclopentane ring, cyclohexane ring, norbornene ring, aromatic rings, tricyclodecane ring; and

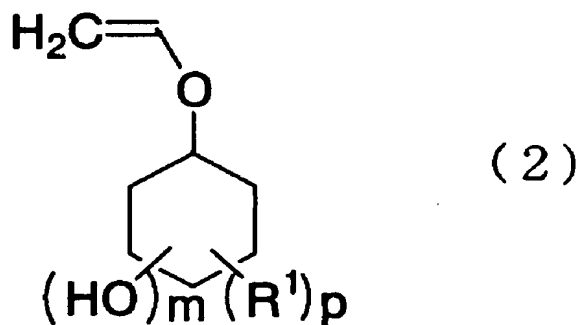
(b) at least one substituent that is selected from the group consisting of $(-\text{OH})_m$, $(-\text{R}^1)_n$, and $-\text{COOR}^4$

where R^1 is at least one substituent selected from the group consisting of $-\text{F}$, $-\text{CF}_3$, and $-\text{R}^2\text{C}(\text{CF}_3)_2\text{OR}^3$, where R^2 is CH_2 or C_2H_4 , and R^3 is H or an acid-labile protecting group,

R^4 is H, a $\text{C}_1\text{-C}_{15}$ alkyl group, or a $\text{C}_1\text{-C}_{15}$ substituent containing an ether bond, and

m is 0 or 1, and n is an integer of 1-8.

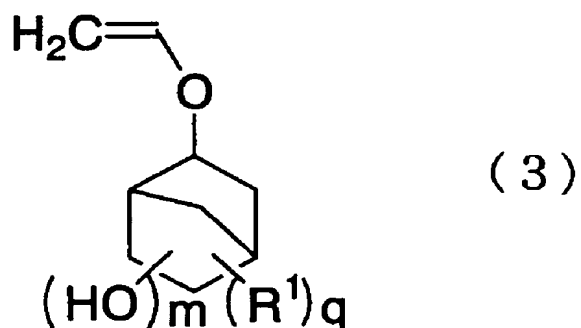
3. (Currently Amended) A fluorine-containing vinyl ether according to claim 1 or 2, which is represented by the formula 2,



where R^1 is at least one substituent selected from the group consisting of $-F$, $-CF_3$, and $-R^2C(CF_3)_2OR^3$, where R^2 is CH_2 or C_2H_4 , and R^3 is H or an acid-labile protecting group, and

p is an integer of 1-5, and m is 0 or 1.

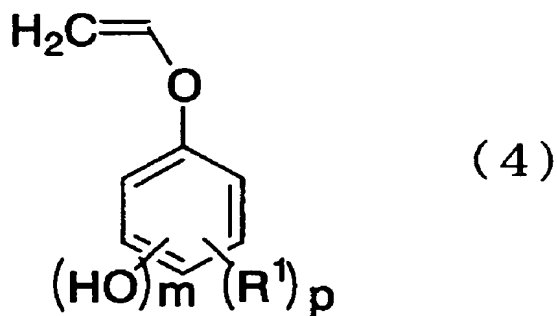
4. (Currently Amended) A fluorine-containing vinyl ether according to claim 1 or 2, which is represented by the formula 3,



where R^1 is at least one substituent selected from the group consisting of $-F$, $-CF_3$, and $-R^2C(CF_3)_2OR^3$, where R^2 is CH_2 or C_2H_4 , and R^3 is H or an acid-labile protecting group, and

q is an integer of 1-4, and m is 0 or 1.

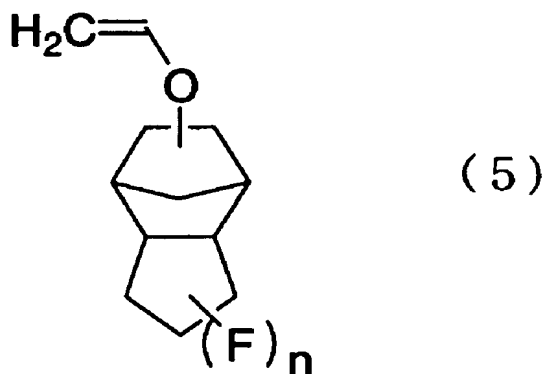
5. (Currently Amended) A fluorine-containing vinyl ether according to claim 1 or 2, which is represented by the formula 4,



where R^1 is at least one substituent selected from the group consisting of $-F$, $-CF_3$, and $-R^2C(CF_3)_2OR^3$, where R^2 is CH_2 or C_2H_4 , and R^3 is H or an acid-labile protecting group, and

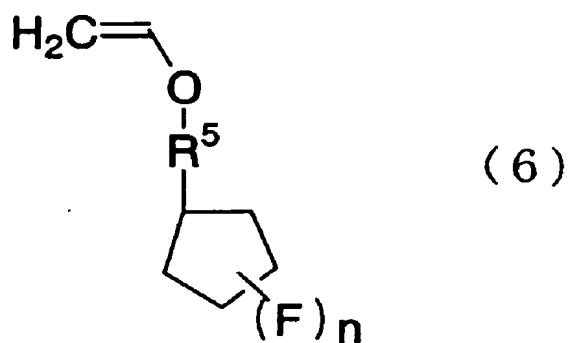
p is an integer of 1-5, and m is 0 or 1.

6. (Currently Amended) A fluorine-containing vinyl ether according to claim 1 or 2, which is represented by the formula 5,



where n is an integer of 1-8.

7. (Currently Amended) A fluorine-containing vinyl ether according to claim 1 or 2, which is represented by the formula 6,

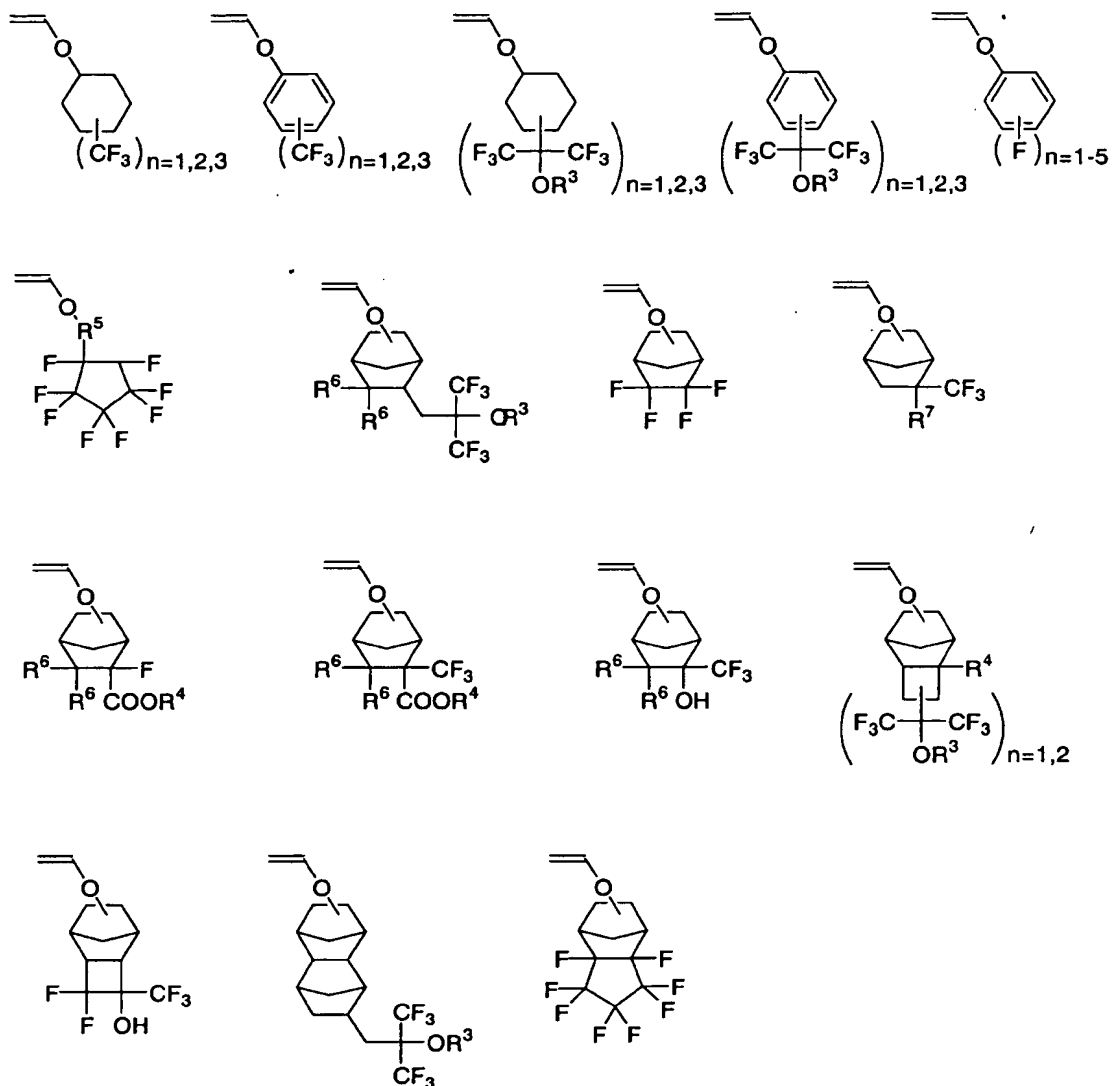


where R^5 is a $\text{C}_0\text{-C}_5$ alkyl group, and n is an integer of 1-8.

8. (Currently Amended) A fluorine-containing vinyl ether according to claim 1 or 2, which comprises a hexafluoroisopropanol unit represented by the formula 7,



9. (Currently Amended) A fluorine-containing vinyl ether according to claim 1 or 2, which is represented by one of the following formulas:



where R^3 is H or an acid-labile protecting group;

R^4 is H, a C_1 - C_{15} alkyl group, or a C_1 - C_{15} substituent having an ether bond;

R^5 is a C_0 - C_5 alkyl group;

R^6 is H or F; and

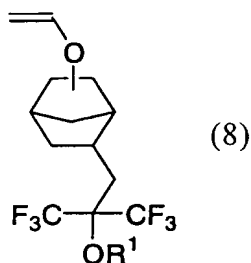
R^7 is CF_3 , OH, CO_2H , CO_2R^8 , or $OCOR^8$ where R^8 is C_1 - C_{15} alkyl group.

10. (Currently Amended) A fluorine-containing polymer comprising a unit derived from a fluorine-containing vinyl ether according to claim 1 or 2.

11. (Original) A resist composition comprising a fluorine-containing polymer according to claim 10.

12. (Original) A fluorine-containing copolymer comprising:

a first unit derived from a first monomer that is a fluorine-containing vinyl ether represented by the formula 8:

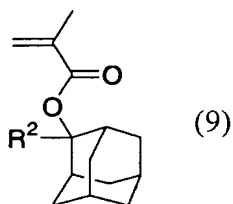


where R¹ is -H or a C₁-C₈ alkyl group that optionally contains an oxygen atom;
and

a second unit derived from a second monomer that is at least one selected from the group consisting of acrylic esters and methacrylic esters.

13. (Original) A fluorine-containing copolymer according to claim 12, wherein the second monomer contains an acid-labile protecting group.

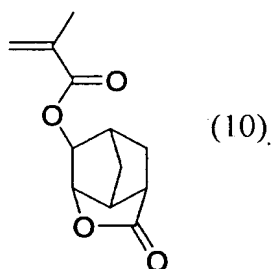
14. (Currently Amended) A fluorine-containing copolymer according to claim 12 ~~or 13~~, wherein the second monomer is a first methacrylic ester represented by the general formula 9:



where R² is -CH₃ or -CH₂CH₃.

15. (Original) A fluorine-containing copolymer according to claim 12, wherein the second monomer is an acrylic or methacrylic ester comprising a lactone ring.

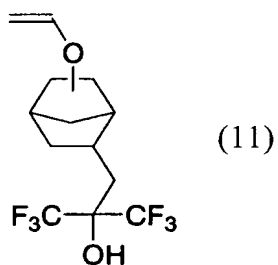
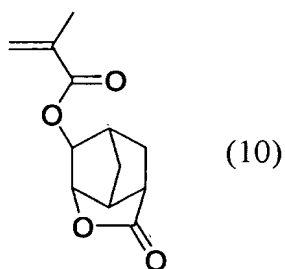
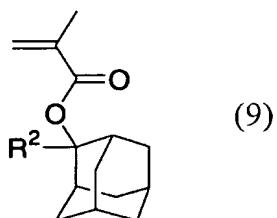
16. (Currently Amended) A fluorine-containing copolymer according to claim 12 ~~or 15~~, wherein the second monomer is a second methacrylic ester represented by the formula 10:



17. (Original) A fluorine-containing copolymer according to claim 12, wherein the second monomer is a combination of first and second methacrylic esters represented by the formulas 9 and 10, and

wherein the fluorine-containing vinyl ether is represented by the formula

11,



where R^2 is $-\text{CH}_3$ or $-\text{CH}_2\text{CH}_3$.

18. (Currently Amended) A resist composition comprising a fluorine-containing copolymer according to claim 12 or 13.